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EXAMINER
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COONEY, JOHN M

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1796

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



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Applicant's arguments filed 7-7-08 have been fully considered but they are not persuasive.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 83-108 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicants' recitation of (1.) ranges of amounts of blown vegetable oils used and (2.) ranges of amount values for the respective A- and B-side component parts as set forth in the claims are not supported by the originally filed supporting disclosure in a manner that it is evident that applicants' invention was described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. This is a new matter invention.

Applicants' supporting disclosure lacks showing of support for possession of ranges of amount values for these respective claim components as now defined by the claims.

Applicants' arguments have been considered. However, rejection is maintained. The recited value points for specific exemplified embodiments of applicants' invention

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are not supportive of the ranges of values now claimed. This rejection is maintained as applying to the amendments received from applicants on 10/31/07.

Claims 83-100 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicants' recitation of "urethane" in describing its catalyst lacks support by the originally filed supporting disclosure such that it is not evident that applicants, at the time the application was filed, had possession of the invention as now claimed. This is a new matter invention.

Applicants' supporting disclosure lacks showing of support for possession of the distinction of their catalyst as being a "urethane" catalyst.

Claims 83-108 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicants' recitation of ranges of heat values set forth in their claims (see claims 83, 93, 94, 96, 97 and 101) are not supported by the originally filed supporting disclosure in a manner that it is evident that applicants' invention was described in the specification in such a way as to reasonably convey to

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one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. This is a new matter invention.

Applicants' supporting disclosure lacks showing of support for possession of ranges of heat values for these respective claim components as now defined by the claims. Further, the reference to heating the system "to about 230<sup>0</sup>F" seen at page 6 of applicants' supporting disclosure is not supportive of the range of temperature values now identified by the language "up to about...".

Claims 84 and 85 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicants' recitation of ranges of amounts of the transesterified polyol are not supported by the originally filed supporting disclosure in a manner that it is evident that applicants' invention was described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. This is a new matter invention.

Applicants' supporting disclosure lacks showing of support for possession of ranges of amount values for these respective claim components as now defined by the claims.

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Claims 92 and 93 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicants' recited group of esterification catalysts is not supported by the originally filed supporting disclosure in a manner that it is evident that applicants' invention was described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. This is a new matter invention.

Applicants' supporting disclosure lacks showing of support for possession of group of catalyst as now defined by the claims.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 83-100 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicants' reference to heat as if it were a physical component of the claims renders the claims confusing as to intent because it renders indefinite determination of what materials are required in making up the constitution of the "material"/product of the

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claims. This is an inappropriate manner for including a product-by-process limitation into the claims.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 83, 86-91, 94, 97-101 and 106-108 are rejected under 35 U.S.C. 103(a) as being unpatentable over Croft (5,688,860) in view of GRANT et al.(Chemical Dictionary).

Croft discloses polymer materials comprising the reaction product of isocyanates, isocyanate reactive materials, catalysts, plasticizers, extenders/crosslinkers, and other materials of applicants' claims (see column 3 line 53 et seq. & column 10 line 60 – column 12 line 40, as well as, the entire document). Croft's disclosure sets forth materials and reactants as well as intermediates employed in the making of its products such that it is seen that esterification to the degree defined by the claims is met by Croft's disclosure, and this recitation in the claims does not distinguish the claims over the teachings of Croft. Difference based on the ranges of A-side to B-side ratios {isocyanate Index values} is not seen.

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Croft differs from applicants' claims in that its oils and derivatives are not blown. However, GRANT et al. (see page 89) discloses blowing oils to be a well known treatment of oils for purposes of providing well studied oxidization effects to the oils which are blown. Based on the disclosure of GRANT et al. and applicants' own admissions, it is held that it would have been obvious for one having ordinary skill in the art to have blown the vegetable oils of Croft in the manner disclosed by GRANT et al. for the purpose of obtaining oxidized oils and effecting control of the reactivities of the oils involved in order to arrive at the products of applicants' claims with the expectation of success in the absence of a showing of new or unexpected results.

Croft differs from applicants' claims in that overlap in the ranges of values for the respective oil component is not exact. However, Croft discloses employment of this component in amounts of up to 60 percent of the entire product which is in overlap with the ranges of values of applicants' claims that are based on the mixture from the B-side component. Accordingly, it would have been obvious for one having ordinary skill in the art to have controlled the amounts of the oil component of Croft within the teachings of Croft for the purpose of controlling its reactive and property impacting effect in order to arrive at the products of applicants' claims with the expectation of success in the absence of a showing of new or unexpected results. Additionally, it has long been held that where the general conditions of the claims are disclosed in the prior art, discovering the optimal or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233; *In re Reese* 129 USPQ 402. Similarly, it has been held that discovering the



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optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272,205 USPQ 215 (CCPA 1980).

The following previously set forth arguments are held to apply to this new grounds of rejection over applicants' newly set forth claims:

When reviewing results, the following must be considered:

Result Must Compare to Closest Prior Art:

Where a definite comparative standard may be used, the comparison must relate to the prior art embodiment relied upon and not other prior art – *Blanchard v. Ooms*, 68 USPQ 314 – and must be with a disclosure identical (not similar) with that of said embodiment: *In re Tatincloux*, 108 USPQ 125.

Results Must be Unexpected:

Unexpected properties must be more significant than expected properties to rebut a prima facie case of obviousness. *In re Nolan* 193 USPQ 641 CCPA 1977.

Obviousness does not require absolute predictability. *In re Miegel* 159 USPQ 716.

Since unexpected results are by definition unpredictable, evidence presented in comparative showings must be clear and convincing. *In re Lohr* 137 USPQ 548.

In determining patentability, the weight of the actual evidence of unobviousness presented must be balanced against the weight of obviousness of record. *In re Chupp*, 2 USPQ 2d 1437; *In re Murch* 175 USPQ 89; *In re Beattie*, 24 USPQ 2d 1040.

Claims Must be Commensurate With Showings:

Evidence of superiority must pertain to the full extent of the subject matter being claimed. *In re Ackerman*, 170 USPQ 340; *In re Chupp*, 2 USPQ 2d 1437; *In re Murch* 175 USPQ 89; *Ex Parte A*, 17 USPQ 2d 1719; accordingly, it has been held that to overcome a reasonable case of prima facie obviousness a given claim must be commensurate in scope with any showing of unexpected results. *In re Greenfield*, 197 USPQ 227. Further, a limited showing of criticality is insufficient to support a broadly claimed range. *In re Lemin*, 161 USPQ 288. See also *In re Kulling*, 14 USPQ 2d 1056.

Applicants' have not persuasively demonstrated unexpected results for the combinations of their claims. Evidence must be attributed to the employment of blown oils rather than non-blown oils. Comparisons must be made with the prior art embodiment relied upon. Applicants must demonstrate their results to be clearly and convincingly unexpected and more than mere optimizations of the knowledge in the art or more significant than being secondary in nature. Blowing/oxidation of vegetable oils

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has the expected effect of brings about changes in –OH functionality, and, accordingly, effects on reactivities of the resultant materials, and there are numerous expected effects associated with these changes. These effects include changes in crosslinking density and altered reactivities. Accordingly, burden is upon applicants' to demonstrate that any showing of results is, in fact, new or unexpected. Additionally, applicants' showings must be commensurate in scope with the scope of the claims as they currently stand.

Although oils of Croft may be employed as plasticizers, such does not negate any implicit reactivity these materials may have. Nor does such negate the expected impact of reactivities that blowing would have on these oils. Showing reduced hydroxyl functionality in castor oil as opposed to the oils of applicants' claims does not substitute for a clear and convincing showing of new or unexpected results attributable to the employment of the modified oils of applicants' claims that is commensurate in scope with the scope of the claims.

As to applicants' arguments pertaining to Croft's disclosure of the functional materials of the claims, it is maintained that Croft provides encompassing disclosure of the functional materials of applicants' claims and provides for esterified polyols being formed to the degree required by the claims (see again column 7 lines 47- column 11 lines 65, as well as, the entire document).

Applicants' arguments on response have been considered. However, distinction in the claims sufficient to overcome the rejection as set forth above have not made evident, and showings of results sufficient to overcome the rejection have not been provided in applicants' reply.

Applicants' latest arguments have been considered. However, rejection is maintained. It is maintained that the combination of the teachings of the cited prior provide for preparing combinations of the polyols, blown-oils to the degree claimed, and temperatures, including ambient conditions and those specified in Croft's examples. As the contacting of the required materials is provided for by the combined teachings and heat to the degree required by applicants' claims is present, it is held that

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transesterification to the degree required by applicants' claims is implicit to combinations formed from the combined teachings of the above cited prior art.

As to the oil component of applicants' claims being "blown". Though the secondary teaching is cited to address this embodiment of the claims, it is held that without claimed degrees of "blowing" and/or chemical modification being set forth in the claims, this claim element carries little weight as a limitation of applicants' claims in the patentable sense. As "blowing" as it relates to the instant materials means passing of air through the oil. Such "blowing", from the standpoint of patentability, would be met by contacting the oil with air to any degree whatsoever. Accordingly, though the secondary teaching GRANT et al. teaching is maintained for its teaching of blowing, it is not seen that this aspect of applicants' invention differentiates applicants' claims from the oils of Croft from the standpoint of patentability.

Claims 84, 85, 92, 93, 95, and 102-105 are rejected under 35 U.S.C. 103(a) as being unpatentable over Croft in view of GRANT et al. as applied to claims 83, 86-91, 94, 97-101 and 106-108 above, and further in view of Trowell (4,720,571).

The teaching and fair suggestions of Croft in view of GRANT et al. differ from applicants' claims in that they do not disclose employment of transesterification/esterification catalysts. However, Trowell discloses the employment of transesterification/esterification catalysts to be well known to the polyurethane foam forming art for their effect of converting ester group containing materials to into

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isocyanate reactant materials. Accordingly, it would have been obvious for one having ordinary skill in the art to have employed transesterification catalysts disclosed by Trowell in the preparations arriving from the combined teachings of Croft and GRANT et al. for the purpose of better enable the entrainment of the vegetable oil plasticizers of Croft and/or the blown vegetable oil materials of the combined teachings of Croft and GRANT et al. into the polymer structure of the polyurethane foam and reduce plasticizing additive release after product formation in order to arrive at the products of applicants' claims with the expectation of success in the absence of a showing of new or unexpected results.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 83-108 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 11/933,049. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the applications set forth materials encompassing products based on isocyanate, catalysts, blowing agents, crosslinkers, blown vegetable oils, and other elements combined in such a manner and in effective amounts such that differences in their material make-ups as to the products realized would have been obvious to an ordinary practitioner with the expectation of success in the absence of a showing of new or unexpected results attributable to the formulational make-ups supported by claim limitations

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Applicants' arguments have been considered in regard to this rejection. However, rejection is maintained. No arguments made by applicants' are specific to this rejection. Accordingly, no further remarks are seen to be necessary in its regard.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kenneally(5,491,226) is cited for its disclosure of transesterification reactions and catalysts in the art. Burke(4,185,146) is cited for its disclosure of blown soya oils and their use in polyurethane applications.

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Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Cooney whose telephone number is 571-272-1070. The examiner can normally be reached on M-F from 9 to 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck, can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/John Cooney/

Primary Examiner, Art Unit 1796